Former Nebraska Ordnance Plant (NOP), Mead, NE.
- Site Background and Information -

Description:

The former NOP site occupies approximately 17,250 acres located one-half mile south of Mead, Saunders County, Nebraska. During World War II and the Korean Conflict, bombs, shells, and rockets were assembled at the site. The NOP included four bomb load lines, a Bomb Booster Assembly plant, an ammonium nitrate plant, two explosive burning areas, a proving range, a landfill, a wastewater treatment plant, analytical laboratories, and storage and administration facilities. Most of the raw materials used to manufacture the weapons were produced at other locations and shipped the NOP facility for assembly. Routine plant operations included washout of explosive materials prior to bomb loading and assembly, and bomb washing following assembly. Wash water was discharged to sumps and in open ditches.

Because the former NOP is a large site with different types of contamination in different locations, investigation and cleanup activities were organized in categories called "operable units". Three operable units (OUs) were organized to help expedite investigation and cleanup activities:

.

- OU1 includes soils contaminated with explosive compounds. OU1 was closed out with the excavation and treatment of soils through an incinerator and submittal of a final report.
- OU2 includes contaminated groundwater, and explosives-contaminated soils not remediated during OU1 (depths greater than 4 feet below ground surface), which might act as a source of explosives to the contaminated groundwater.
  NOTE: Remediation of OU2 explosives-contaminated soils was implemented during the OU1 remedial action. OU2 execution is on going and consists of containment of a plume of contaminated groundwater located in the upper aquifer as well as the clean up, through pumping and treating, of isolated hot spots of contamination and surface water discharge.
- OU3 includes a former on-site landfill and former unidentified waste disposal areas not previously identified.

Operable Unit (OU2; Groundwater) History:

- 1992 – Remedial Investigation Completed
- 1995 – Feasibility Study Completed
- 1997 – Record of Decision (ROD) Signed
- 2001 – Groundwater Circulation Pilot Study Completed
- 2002 - Treatment Plant Construction Completed

Chemicals of Concern with Target Cleanup Goals (per OU2 ROD):

- Methylene chloride – 5 parts per billion (ppb)
- 1,2-dichloropropane – 5 ppb
- Trichlorethene (TCE) – 5 ppb
- 1,3,5-trinitrobenzene (TNB) – 0.778 ppb
- 2,4,6-trinitrotoluene (TNT) – 2 ppb
- 2,4 or 2-6-dinitrotoluene (DNT) – 1.24 ppb
- hexahyro-1,3,5-trinitro-1,3,5-triazine (RDX) - 2 ppb

On-going Activities (FY2005):

- Finalization of Load Line 1 Remedial Design associated with extended TCE plume, construction of Air Stripper, installation of two extraction wells, and plant prove out in December 2005.
- Operations & Maintenance of Treatment Plant, 10 extraction wells and 2 groundwater circulation wells.
- Groundwater Monitoring Program:
  - Sampling of residential wells in and around the site,
  - Sampling of municipal supply wells for Memphis, Ashland, and Lincoln, NE.,
  - Sampling of monitoring wells in and around the site, and
  - Surface water sampling of Clear, Silver and Johnson Creeks.
- Monthly Project Managers meetings between USACE/USEPA/NDEQ.
- Quarterly Restoration Advisory Board Meetings.
- Provide and maintain alternate water supply to impacted residents.
- On-going coordination with Corps of Engineers' Kansas City and Omaha Districts, HTRW Center of Expertise, and the Metropolitan Utilities District (M.U.D.) on M.U.D.'s groundwater model associated with the proposed well field project.